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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,751	08/17/2006	Francese Giancarlo	705152-2001	9535

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EXAMINER	
RAO, SAVITHA M	
ART UNIT	PAPER NUMBER
1614	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/589,751	GIANCARLO ET AL.	
	Examiner	Art Unit	
	SAVITHA RAO	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-27* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-27 are currently pending in the instant application and are subject to a lack of unity requirement.

Note: Instant claims 13 and 25 -27 are drawn to a non-statutory subject matter. They are use claims. It is drawn towards the use of the injection or infusion solution containing (6S) –sodium-folinate or (6S)-potassium folinate. But, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. Accordingly, in the instant restriction requirement claims 13 and 25 -27 are being included in invention IV, V and IV below drawn towards a process of preparation, product and method of use. It is incumbent upon the applicant to clarify the invention to which the claims are drawn to.

Also to note is the use claim # 26 which recites the use of a solution is dependent on instant claim 1 which is actually drawn towards a preparation of crystalline or amorphous (6RS)-n(5)-formyl-5,6,7,8-tetrahydrofoic acid. For the purposes of this restriction, use claim 26 is assumed to be dependent on claim 18 which is drawn towards a solution. Applicant is recommended to make appropriate corrections.

Election Restrictions

REQUIREMENT FOR UNITY OF INVENTION

As provided in 37 CFR 1.475(a), a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive

concept ("requirement of unity of invention"). Where a group of inventions is claimed in a national stage application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

The determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim. See 37 CFR 1.475(e).

When Claims Are Directed to Multiple Categories of Inventions:

As provided in 37 CFR 1.475(b), a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

(1)A product and a process specially adapted for the manufacture of said product; or

(2)A product and process of use of said product; or

(3)A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or

(4)A process and an apparatus or means specifically designed for carrying out the said process; or

(5)A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process.

Otherwise, unity of invention might not be present. See 37 CFR 1.475(c).

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

I. Group I: Claims 1-10, 13 and 25-27 are drawn to a process for the preparation of crystalline (6RS)-n(5)-formyl-5,6,7,8-tetrahydrofoic acid or of amorphous formula (6RS)-n(5)-formyl-5,6,7,8-tetrahydrofoic acid below.

II. Group II: Claim 11, 12, 13 and 25-27 are drawn to crystalline (6RS)-n(5)-formyl-5,6,7,8-tetrahydrofoic acid and amorphous (6RS)-n(5)-formyl-5,6,7,8-tetrahydrofoic acid

III. Group III: Claims 13, is drawn to the method of use of (6RS)-n(5)-formyl-5,6,7,8-tetrahydrofoic acid (crystalline or amorphous) for the preparation of aqueous solution of sodium or potassium salt of (6RS)- or (6S)-folinic acid.

IV. Group IV: Claims 13,14-17 and 25-27 are drawn to the a process for the preparation of a concentrated, stable solution especially of an injection or infusion solution of the sodium or potassium salt of (6RS) or (6S)-folinic acid.

V. Group V: Claim 13, 18-2 and 25-27 are drawn to a concentrated, stable solution, especially an injection solution or an infusion solution, characterized in that it contains besides water either (6S)- sodium-folinate or (6S)-potassium folinate.

VI. Group VI: Claims 25-27 are drawn to a method of use of solution of Group V for the preparation of a medicament. **Please note additional Election of Species Requirement 1 outlined below**

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.
Groups I to VI lack unity of invention under 37 CFR 1.475 since the groups (I-VI) are not unified by the same or corresponding special feature as detailed below.

The special technical feature in **Group I** is process of preparation of crystalline or amorphous (6RS)-n(5)-formyl-5,6,7,8-tetrahydrofoic acid which involves, sourcing the raw materials, and specific steps as detailed in instant claim 1.

The special technical feature in **Group II** is specific compound which is crystalline or amorphous (6RS)-n(5)-formyl-5,6,7,8-tetrahydrofoic acid

The special technical feature in **Group III** is the method of using the crystalline or amorphous (6RS)-n(5)-formyl-5,6,7,8-tetrahydrofoic acid for preparation of an aqueous solution of the sodium or potassium salt of (6RS) or (6S)-folinic acid which potentially involves sourcing of other raw materials and carrying out a reaction with (6RS)-n(5)-formyl-5,6,7,8-tetrahydrofoic acid with the final outcome of obtaining (6RS) or (6S)-folinic acid.

The special technical feature in **Group IV** compound of formula above for making a medicament useful for inhibiting HCV activity in a mammal infected with HCV or co-infected with HIV and HCV which involves the process of preparation of the medicament by addition of carriers and other appropriate excepients (dependent on the dosage form and route of administration) with the final outcome of obtaining the compound in a form ready for administration to a mammal.

The special technical feature in **Group V** is the specific concentrated stable solution especially for injection or infusion containing (6S)-sodium-folinate or (6S)-potassium folinate.

The special technical feature in **Group VI** is the method of using the compound solution especially for injection or infusion containing (6S)-sodium-folinate or (6S)-potassium folinate for the preparation of a medicament which involves formulating the compounds in a pharmaceutically acceptable carrier along with other excipients.

Accordingly there is no same or corresponding special technical features unifying Groups I-VI and thereby they lack unity.

Therefore, since in the instant application the claims are drawn to patentably distinct inventions, based on, different products, method of use and method of making shown above, and according to 37 CFR 1.475(e): the determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claims.

The claims, therefore, lack unity of invention.

Election of Species

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1. **This specie election is required upon electing Group VI from the above restricted groups only.**

1. Specie election: This specie election applies to all of Groups VI detailed in the restriction requirement above. Applicant is first required to elect any one of the following species (1a or 1b or 1c)

Specie 1a: Method of use of solution of claim 18 for the preparation of a medicament for rescues-rescue agent-after the treatment with high dose of methotrexate.

Specie 1b: Method of use of solution of claim 18 for the preparation of a medicament which is combined with 5-fluorouracil

Specie 1c: Method of use of solution of claim 18 for the preparation of a medicament in the treatment of megaloblastic anemia and dihydro-pteridin reductase deficiency.

The species are structurally divergent, differ in their physical, chemical and biological properties and activities and thereby require searching in different class/subclasses and use of different search queries. Additionally, the different properties of the claimed species would also result in different efficacies and

bioavailability profiles. In the instant case, the reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise require all the limitations of an allowed generic claim. Currently, the following claim(s) are generic: 1-13 and 15-16 are generic.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii)identification of the claims encompassing the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the

election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Rejoinder

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101,102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b).

Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAVITHA RAO whose telephone number is (571)270-5315. The examiner can normally be reached on Mon-Fri 8 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SAVITHA RAO/
Examiner, Art Unit 1614

/Ardin Marschel/
Supervisory Patent Examiner, Art Unit 1614